

## BAX-MEDIATED APOPTOSIS MODULATING REAGENTS AND METHODS

### Abstract of the Disclosure

The invention features substantially purified polypeptide fragments of two specific domains, namely the ART domain and the transmembrane domain, within the BAX protein which, when administered to a cell, increase or decrease apoptosis of the cell. Also disclosed are methods for identifying compounds which, when administered to a cell, increase or decrease apoptosis of the cell. These compounds are identified based on their abilities to interact with specific domains of the BAX protein, or to alter the interaction of the BAX ART domain with the BAX transmembrane domain.

In addition, the invention provides methods for diagnosing a patient having, or predisposed to develop, a disease involving altered apoptosis by identifying a mutation in a BAX-encoding gene which results in an amino acid mutation in the BAX ART domain, a BAX transmembrane domain, or that alters the interaction of the BAX ART domain with the BAX transmembrane domain.

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